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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,418	05/12/2005	Makoto Komatsu	2004-1316A	7380

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EXAMINER	
MENON, KRISHNAN S	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
04/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/505,418	KOMATSU ET AL.	
	Examiner	Art Unit	
	Krishnan S. Menon	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *31 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17,18,21-27,35 and 36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17,18,21-27,35 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/29/08, 4/9/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims *17,18,21-27,35 and 36* are pending as amended 3/31/08

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims *17,18,21-27,35 and 36* are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-19 of copending Application No. 10/554,585. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of both applications recite fibrous woven or non-woven filters with ion exchange groups. The pore size and fiber dimensions of the instant claims are obvious over that of application'585 because they can be optimized based on the application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's intention to make the reference application go abandoned is noted; however, the rejection cannot be withdrawn until it does go abandoned.

Claim Rejections - 35 USC § 102/103

1. Claims *17,18 and 35* are rejected under 35 U.S.C. 102(b) as being anticipated by, or under 35 USC 103(a) as being obvious over, JP 2000-254456.

An English translation of this reference is included herewith in an 892. This JP patent to Fujiphoto teaches a cartridge having a fibrous membrane layer with ion exchange capacity and having sulfonic acid groups, and a microporous membrane layer of pore size about 0.02-.02 μm pore size. The reference teaches that the ion exchange groups are introduced by methods such as graft polymerization. The reference teaches the fiber diameters required for the base filter material in the range 14-35 μm, and a base material weight, mass.area, as 20-80 g.m2. Even if the reference doesnot teach the porosity required in the base material as 1-20 μm, the combination of the fiber diameter and the mass density would inherently assure the proper pore size range, and the reference does inherently teaches the pore size as claimed. The reference teaches sulfonic acid as well as other groups claimed, and also the system for filtration.

2. Claims *17,18,21-27,35 and 36* are rejected under 35 U.S.C. 103(a) unpatentable over the combination of JP and Jewell et al (US 4,828,698).

Jewell teaches a filter assembly for water treatment having a layer of non-woven microfibers such as polypropylene loaded with ion exchange material and a layer of microporous membrane of 0.2 µm rating for removal of pathogens as claimed (figures, column 4, lines 3-48). The microporous membrane is hydrophilic (column 5, lines 13-37). The non-woven material has fiber diameter inherently in the range claimed because it is described as "microfibers". Pore size of the non-woven layer is from 0.5-5 microns. Ion exchange material is loaded in the non-woven. Regarding the specific ion exchange group, since applicant's claims include all possible ion exchange groups, the claim is anticipated by the reference, or is at least it is made obvious. See also the claims of the reference. Jewell is short the details claimed such as graft polymerization to obtain the ion exchange groups on the fibers. However, this limitation is only a process limitation in a product claims and as such not patentable unless applicant can show that the structure claimed is absent in the Jewell, which applicant has failed to do.

The teaching of JP is briefly described above, as required in claim 17. JP also teaches that microporous membranes with ion exchange groups, which inherently make them hydrophilic, is known in the art, and that his invention is an improvement over that because he provides more ion exchange capacity in his laminate of the fibrous filter and the microporous membrane. Jewell teaches the need for microporous membrane to be hydrophilic, as shown above, for removing bacteria, etc.

Thus it would be obvious to one of ordinary skill in the art to combine these references to arrive at applicant's invention because JP teaches that having microporous membranes with hydrophilic groups are already known, and Jewell

teaches having hydrophilic microporous membrane for bacteria removal. See also KSR: the one would combine the references because it would lead to predictable results.

Arguments submitted: arguments about JP reference are addressed in the rejection; the rest are moot – new grounds for rejection because of claim amendments.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/
Primary Examiner, Art Unit 1797